

ELECTRONIC INFORMATION DISCLOSURE STATEMENT

RECEIVED

Electronic Version v18
Stylesheet Version v18.0

JU 30 2001

Title of Invention

Method and arrangement for layout and manufacture of nonmanhattan semiconductor integrated circuit using simulated euclidean wiring

Application Number:

09/972011

09/972011

Confirmation Number:

5250

First Named Applicant: Steven Teig

Attorney Docket Number: SPLX.P0068

Art Unit:

2825

Examiner:

Helen B. Rossoshek

Search string:

(4855253 or 5541005 or 5635736 or 5637920 or 5640327 or 5646830 or 5650653 or 5689433 or 5723908 or 5784289 or 5801385 or 5811863 or 5822214 or 5880969 or 5889329 or 5980093 or 6150193 or 6260183 or 6262487 or 6263475 or 6301686 or 6307256 or 6316838 or 6324674 or 6412097 or 6448591 or 6516455 or 20010009031

or 20030025205).pn.

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
142	1	4855253	1989-08-08	Weber]		
He	2	5541005	1996-07-30	Bezama et al.]		
HR	3	5635736	1997-06-03	Funaki et al.			i
HR	4	5637920	1997-06-10	Loo			
He	. 5	5640327	1997-06-17	Ting			
He	6	5646830	1997-07-08	Nagano			
He	. 7	5650653	1997-07-22	Rostoker et al.			
					j /		

09-972011

He	8	5689433	1997-11-18	Edwards	
HR	9	5723908	1998-03-03	Fuchida et al.	
HR	10	5784289	1998-07-21	Wang	
He	11	5801385	1998-09-01	Endo et al.	
He	12	5811863	1998-09-22	Rostoker et al.	
He	13	5822214	1998-10-13	Rostoker et al.	
HR	14	5880969	1999-03-09	Hama et al.	
He	15	5889329	1999-03-30	Rostoker et al.	
40	16	5980093	1999-11-09	Jones et al.	
40	17	6150193	2000-11-21	Glenn	
He	18	6260183	2001-07-10	Raspopovic et al.	B1
40	19	6262487	2001-07-17	lgarashi et al.	B1
40	20	6263475	2001-07-17	Toyonaga et al.	B1
HR	21	6301686	2001-10-09	Kikuchi et al.	B1 (
UR	22	6307256	2001-10-23	Chiang et al.	B1
He	23	6316838	2001-11-13	Ozawa et al.	B1
HR	24	6324674	2001-11-27	Andreev et al.	B2
40	25	6412097	2002-06-25	Kikuchi et al.	B1
HR	26	6448591	2002-09-10	Juengling	B1
MR	27	6516455	2003-02-04	Teig et al.	B1

US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
HR	1	20010009031	2001-07-19	Nitta et al.	A1		
HR	2	20030025205	2003-02-06	Shively	A 1		

Signature

Examiner Name	Date
Alelen Latrospel	11/08/2004

	Based on PTO/SB/08 a & b (05-03)
	Approved for use through 05/31/2003. OMB 0651-0031
U.S. Patent and T	rademark Office, U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1	995, no persons are required to respond to a collection of
· ·	nformation unless it contains a valid OMB control number

Please type a plu	s sign (+) inside this t	00x → [+]	U	Inder the Paperwork Reduction Act of 199	demark Office; U.S. DEPAR 15, no persons are required to ormation unless it contains a v	respond to a collection of
/	bstitute for for	m 1449A/PT	0	Application Number	09/972,011	RECEN
JUL. 2 6 2004 INFO			CUDE	Filing Date	10/5/2001	CEIVER
SIA	INFORMATION DISCLOSURE			First Named Inventor	Steven Teig, et al.	
PADEMAR		I AI I EI	OAITI	Group Art Unit	2825	JUL 30 2004
(use as many shee	ts as necess	ary)	Examiner Name	Helen Rossoshek	TECH CENTER 2800
Sheet	1	of	1	Attorney Docket Number	SPLX.P0068	- ZED

	FOREIGN PATENT DOCUMENTS												
Examiner* Initials	Cite No.1	For Office ³	reign Patent Document Kind Co Number ⁴ (if know		Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶						
MR	1.	JP	04-000677	01-06-1992	Fujiwara et al.	with English translation of Abstract;							
HR	2.	JP	2000-082743	03-21-2000	Igarashi et al.	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	1						

		NON PATENT LITERATURE DOCUMENTS	
Examiner* Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
HR	3.	Chen et al., Optimal Algorithms for Bubble Sort Based Non-Manhattan Channel Routing, May 1994, Computer-Aided Design of Integrated Circuits and Systems, IEEE Transactions Volume: 13 Issues, pp. 603-609.	
HR	4.	Chen, H. et al., Physical Planning of On-Chip Interconnect Architectures, 2002, IEEE, International Conference, pp. 30-35	
Hill	5.	Cong J. et al., DUNE A Multilayer Gridless Routing System, May 2001, IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, vol 20, iss. 5, pp. 633-647.	
HR	6.	Dion J. et al., Contour: A Tile-based Gridless Router, March 1995, Digital Western Research Laboratory, research Report 95/3, pp.1-22	
HR	7.	Merriam-Webster's Collegiate Dictionary, 10 th edition, Merriam-Webster Incorporated, p.606	
HR	8.	Schiele, W. et al., A Gridless Router for Industrial Design Rule, 27 th ACM-IEEE Design Automation Conference, pp. 626-631, 1990.	
HR	9.	Tseng H. et al., A Gridless Multilayer Router for Standard Cell Circuits Using CTM Cells, Oct. 1999, IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, vol 18, iss. 10, pp. 1462-1479.	

Examiner Signature	Losseshe	le	Date Considered	11/	08	12004	
				7			_

Translation is attached.

This collection of information is required by 37CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing the burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

^{*} EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number(optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English tanguage Translation is attached.



ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18 Stylesheet Version v18.0

> Title of Invention

Method and arrangement for layout and manufacture of nonmanhattan semiconductor integrated circuit using simulated euclidean wiring

Application Number:

09/972011

Confirmation Number:

5250

First Named Applicant:

Steven Teig

Attorney Docket Number: SPLX.P0068

Art Unit:

2825

Examiner:

Helen B. Rossoshek

Search string:

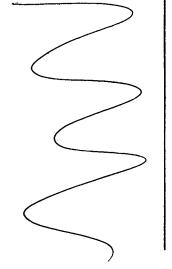
(4855253 or 5541005 or 5635736 or 5637920 or 5640327 or 5646830 or 5650653 or 5689433 or 5723908 or 5784289 or 5801385 or 5811863 or 5822214 or 5880969 or 5889329 or 5980093 or 6150193 or 6260183 or 6262487 or 6263475 or 6301686 or 6307256 or 6316838 or 6324674

or 6412097 or 6448591 or 6516455 or 20010009031 or 20030025205).pn.

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee
He	1	4855253	1989-08-08	Weber
40	2	5541005	1996-07-30	Bezama et al.
He	3	5635736	1997-06-03	Funaki et al.
He	4	5637920	1997-06-10	Loo
HR	5	5640327	1997-06-17	Ting
He	6	5646830	1997-07-08	Nagano
42	. 7	5650653	1997-07-22	Rostoker et al.
HA	8	5689433	1997-11-18	Edwards
48	9	5723908	1998-03-03	Fuchida et al.
40	10	5784289	1998-07-21	Wang
HR	_ 11	5801385	1998-09-01	Endo et al.



Kind

Class

Subclass

09/972011

		•			
12	5811863	1998-09-22	Rostoker et al.		
13	5822214	1998-10-13	Rostoker et al.		
14	5880969	1999-03-09	Hama et al.]	
15	5889329	1999-03-30	Rostoker et al.]	
16	5980093	1999-11-09	Jones et al.]	
17	6150193	2000-11-21	Glenn		(
18	6260183	2001-07-10	Raspopovic et al.	B1	`
19	6262487	2001-07-17	Igarashi et al.	B1	
20	6263475	2001-07-17	Toyonaga et al.	B1	
21	6301686	2001-10-09	Kikuchi et al.	B1	
22	6307256	2001-10-23	Chiang et al.	B1	
23	6316838	2001-11-13	Ozawa et al.	B1	
24	6324674	2001-11-27	Andreev et al.	B2	
25	6412097	2002-06-25	Kikuchi et al.	B1	
26	6448591	2002-09-10	Juengling	B1	
_ 27	6516455	2003-02-04	Teig et al.	B1	
	13 14 15 16 17 18 19 20 21 22 23 24 25 26	13 5822214 14 5880969 15 5889329 16 5980093 17 6150193 18 6260183 19 6262487 20 6263475 21 6301686 22 6307256 23 6316838 24 6324674 25 6412097 26 6448591	13 5822214 1998-10-13 14 5880969 1999-03-09 15 5889329 1999-03-30 16 5980093 1999-11-09 17 6150193 2000-11-21 18 6260183 2001-07-10 19 6262487 2001-07-17 20 6263475 2001-07-17 21 6301686 2001-10-09 22 6307256 2001-10-23 23 6316838 2001-11-13 24 6324674 2001-11-27 25 6412097 2002-06-25 26 6448591 2002-09-10	13 5822214 1998-10-13 Rostoker et al. 14 5880969 1999-03-09 Hama et al. 15 5889329 1999-03-30 Rostoker et al. 16 5980093 1999-11-09 Jones et al. 17 6150193 2000-11-21 Glenn 18 6260183 2001-07-10 Raspopovic et al. 19 6262487 2001-07-17 Igarashi et al. 20 6263475 2001-07-17 Toyonaga et al. 21 6301686 2001-10-09 Kikuchi et al. 22 6307256 2001-10-23 Chiang et al. 23 6316838 2001-11-13 Ozawa et al. 24 6324674 2001-11-27 Andreev et al. 25 6412097 2002-06-25 Kikuchi et al. 26 6448591 2002-09-10 Juengling	13 5822214 1998-10-13 Rostoker et al. 14 5880969 1999-03-09 Hama et al. 15 5889329 1999-03-30 Rostoker et al. 16 5980093 1999-11-09 Jones et al. 17 6150193 2000-11-21 Glenn 18 6260183 2001-07-10 Raspopovic et al. B1 19 6262487 2001-07-17 Igarashi et al. B1 20 6263475 2001-07-17 Toyonaga et al. B1 21 6301686 2001-10-09 Kikuchi et al. B1 22 6307256 2001-10-23 Chiang et al. B1 23 6316838 2001-11-13 Ozawa et al. B1 24 6324674 2001-11-27 Andreev et al. B2 25 6412097 2002-06-25 Kikuchi et al. B1 26 6448591 2002-09-10 Juengling B1

US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
HR	1	20010009031	2001-07-19	Nitta et al.	A1		
HR	_ 2	20030025205	2003-02-06	Shively	A1		

Signature

Examiner Name	Date
Steller Lossophelo-	01/08/2014

This Page is Inserted by IFW Indexing and Scanning Operations and is not part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:	
[□ BLACK BORDERS
(☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
(☐ FADED TEXT OR DRAWING
į	☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
-	☐ SKEWED/SLANTED IMAGES
1	COLOR OR BLACK AND WHITE PHOTOGRAPHS
ļ	☐ GRAY SCALE DOCUMENTS
. 1	LINES OR MARKS ON ORIGINAL DOCUMENT
İ	☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
į	OTHER:

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.